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(71) Applicants (for all designated States except US): DOW CORNING CORPORATION [US/US]; 2200 West Salzburg Road, Midland, MI 48686-0994 (US). DOW CORNING TORAY SILICONE CO., LTD. [JP/JP]; 4th Floor, AIG Building, 1-1-3, Marunouchi, Chiyoda-ku, Tokyo 100-0005 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ROMENESKO, David [US/US]; 4102 Elm Court, Midland, MI 48642 (US). SCHMIDT, Randall [US/US]; 813 Honeysuckle Circle, Midland, MI 48642 (US). TOGASHI, Atsushi [JP/JP]; 3-7-15-303 Nobuto, Cho-ku, Chiba-shi, Chiba Prefecture 260-0032 (JP). WIEBER, Gary [US/US]; 4407 Huron Drive, Midland, MI 48642 (US).

(74) Common Representative: DOW CORNING CORPORATION; TROY, Timothy, Patent Department - Mail CO1232, 2200 West Salzburg Road, Midland, MI 48686-0994 (US).

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(54) Title: FLAME RETARDANT COMPOSITIONS

(57) Abstract: This invention relates to a flame retardant composition comprising: (a) 81 to 99.99 weight percent of a thermoplastic resin, thermoset resin, thermoplastic resin blend, or thermoset resin blend which upon burning forms a char and (b) 0.01-19 weight percent of a silsesquioxane resin having a weight average molecular weight of greater than 300 and having the average molecular formula: $(R_3SiO_{1/2})_a(R_2SiO_{2/2})_b(RSiO_{3/2})_c(SiO_{4/2})_d(RO_{1/2})_e(OH_{1/2})_f$ wherein each R is hydrogen, an alkyl group, an alkenyl group, or an aryl group having from 6 to 12 carbon atoms, a and b are zero or positive numbers and the value of a+b is greater than zero, c is a positive number, d, e and f are zero or positive numbers with the provisos that the copolymer comprises at least 40 mole percent of $R_3SiO_{3/2}$ units, the copolymer comprises less than 10 mole percent $SiO_{4/2}$ units, greater than 30 mole percent of the silicon-bonded R groups are silicon-bonded aryl groups, greater than 0.5 mole percent of the silicon-bonded R groups are silicon-bonded hydrogen atoms, the content of silicon-bonded hydroxyl groups is equal to or less than 2 weight percent, and the content of silicon-bonded alkoxy groups where the alkoxy group is methoxy or ethoxy is equal to or less than 5 weight percent.

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